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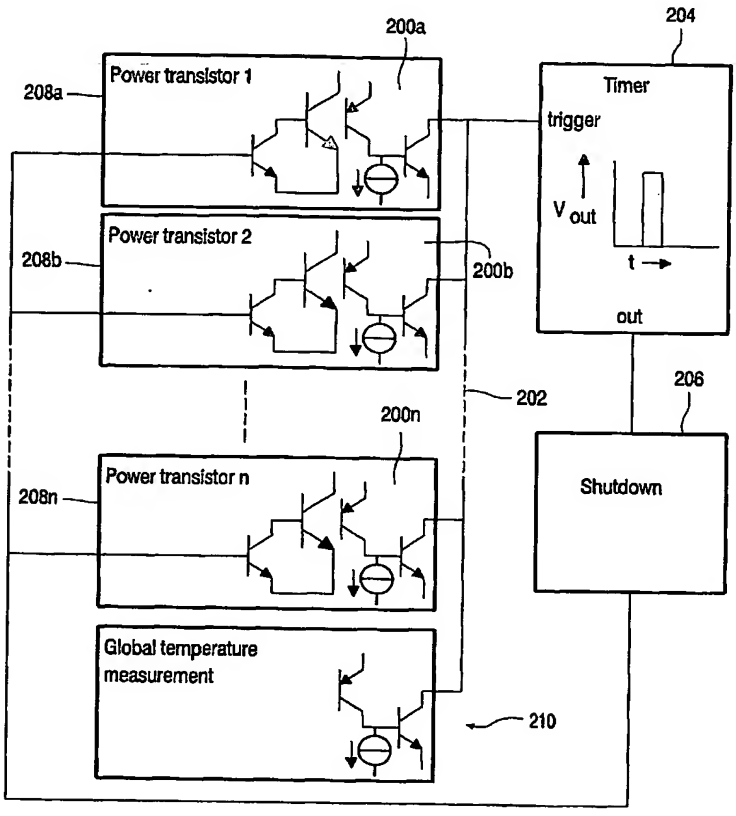
(54) Title: METHOD AND APPARATUS FOR INTEGRATED CIRCUIT PROTECTION



(57) Abstract: A method and apparatus for protecting an integrated circuit against damage caused by excessive temperatures, the integrated circuit comprising a plurality of power transistors (208a, 208b, 208n). Each of the power transistors (208) is provided with a respective temperature measurement circuit (200a, 200b, 200n). Temperature measurement is based on the temperature dependence of the current through a reverse biased pn junction. All temperature measurement circuits (200) are connected to a pull-down line (202), the trigger input of a timer (204). The timer (204) generates a pulse with a fixed period that is fed to a shutdown circuit (206) that switches off all of the power transistors (208) by pulling base to emitter and disabling all their driver transistors, in the event that the temperature in any one of the power transistors (208) is determined to exceed some predetermined local threshold temperature. A global temperature sensor (210) is also provided to measure temperature of the small signal part of the integrated circuit, and switch off the circuit in the event that this temperature is determined to exceed some predetermined global threshold temperature.

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